# RESEARCH HIGHLIGHTS

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# QUALITY OF LOCATION AND QUALITY-OF-LIFE IN CENTRAL MONTRÉAL NEIGHBOURHOODS

## Introduction

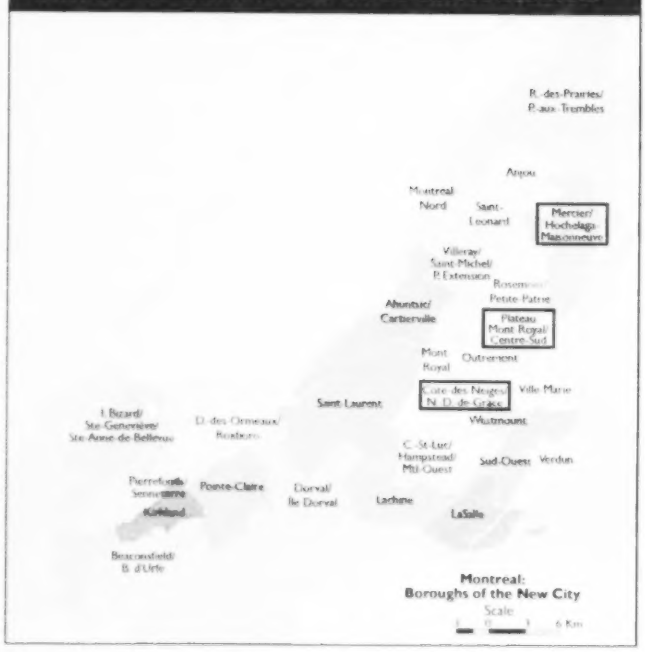
This paper presents the results of quality-of-life analysis of three central Montréal neighbourhoods: Côte-des-Neiges, Plateau Mont-Royal and Hochelaga-Maisonneuve. Figure 1 shows the location of the boroughs of the new city of Montréal resulting from the most recent municipal merger. To better comprehend the quality-of-life in these neighbourhoods, we adopted a mixed approach that includes objective and subjective criteria. The objective approach attempts to directly measure quality-of-life based on certain characteristics of the population and the neighbourhood; the subjective approach looks at the degree of satisfaction expressed by individuals with respect to their own living conditions.

To do this, we first addressed the issue of an objective measurement of quality-of-life based on the results of an analysis of its main components. Then the subjective quality-of-life analysis was conducted using an environment and accessibility assessment obtained during a survey of these neighbourhoods. Finally, in the last section, we analyzed the statistical relationships between objective and subjective quality-of-life in order to examine more fully the extent to which the first can be shown to support the second.

It should be noted that this study relies on a conceptual model showing the essential relationships that become established between the concept of quality-of-life (objective) and the concept of well-being seen as subjective quality-of-life (Langlois and Anderson, 2001).

For the purposes of this analysis, this model views objective quality-of-life as concrete support for subjective quality-of-life, in other words, as a potential of the environment that can only be realized as a function of the abilities, motivation and aspirations of the people living there. We believe there should be a relatively high correlation between objective and subjective quality-of-life.

**Figure 1 Boroughs of the new city of Montréal with the location of the three zones studied.**

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## Results

### a) Objective quality-of-life in central neighbourhoods

Objective measurement of quality-of-life in the central neighbourhoods of Côte-des-Neiges, Plateau Mont-Royal and Hochelaga-Maisonneuve was based on the results of the 1996 census. The variables examined related to characteristics of the people and of the housing. Five components were identified: human capital (income, education, work), lifestyle (socio-demographic status, transportation methods), ethno-linguistic status, housing (age and maintenance) and the number of single-parent families. Of these five components, the two retained to measure the objective quality-of-life related to human capital and residential capital. The objective quality-of-life index was defined as the average of the factor score associated with these two components, by giving them the same weighting when calculating the index.

**Figure 2 Human capital, residential capital and the index of objective quality-of-life in the three central neighbourhoods of Montréal.**

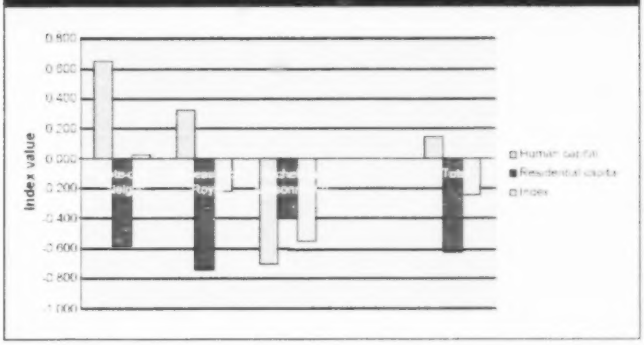


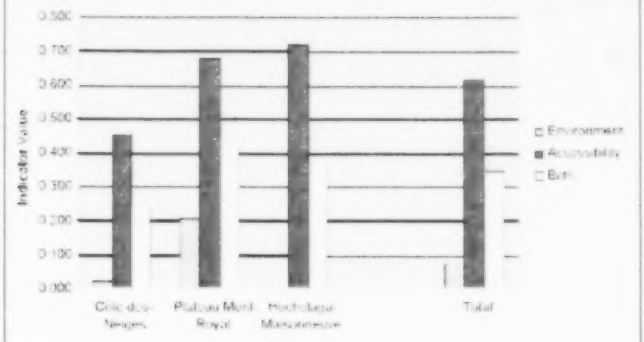

Figure 2 gives the results obtained for the three neighbourhoods under study. The residential capital is similar in the three neighbourhoods, with a negative average for the three neighbourhoods, especially for the Plateau. On the other hand, the human capital for the population of Hochelaga-Maisonneuve is clearly lower than the other two, with a fairly high negative average. As a result, the objective indicator of quality-of-life shows as negative in Hochelaga-Maisonneuve and the Plateau whereas Côte-des-Neiges is closer to the general average (for the entire city). Another important fact to emphasize is the low variation in values for Hochelaga-Maisonneuve compared to the other two neighbourhoods, which demonstrates greater homogeneity.

### b) Subjective quality-of-life in the central neighbourhoods

Figure 3 and Table 1 present the results of a survey of the subjective quality-of-life for residents of the three neighbourhoods under study, based on a sample of 150 respondents (50 respondents per neighbourhood). The subjective quality-of-life measurement was based on values respondents attributed to the environment and accessibility. Respondents were asked to indicate their satisfaction with and the importance they attribute to a series of items related to each of these dimensions. The items related to living environment dealt with housing, the neighbourhood, quality of public services, and involvement in communal life in the neighbourhood. The items related to accessibility addressed access to common goods and services based on area of residence. The satisfaction expressed and the importance given to a particular item were then combined into a single measure according to the method suggested by Raphaël (1996) as part of a similar survey. The averages for this measure, combined for each of the dimensions, environment and accessibility, are shown in Figure 2. This table also provides the value for the subjective quality-of-life index, which is simply the average of the two previous values.

The results obtained (Figure 3) show first that the environment receives a much lower rating than the accessibility component as a component of quality-of-life in the three neighbourhoods, especially in Hochelaga-Maisonneuve. In addition, Plateau respondents expressed the best subjective quality-of-life, with an average of 0.4388, with Hochelaga-Maisonneuve coming second at 0.3600, and Côte-des-Neiges at 0.2367. However, a statistical test conducted on the gaps between the neighbourhoods shows that these differences are not significant (test F with f=1.114 and p=0.331 for $dl_1$=2 and $dl_2$=146). Table 1 gives the results of an F test regarding the gaps related to sex and age in the three neighbourhoods. The difference in perception between the genders appears quite significant. With respect to age, older individuals seem more satisfied with their quality-of-life than do younger ones. In fact, looking at the entire sample, there is a considerable gap in ratings separating those 65 years of age and older from those under 30 years. Ratings decrease from 0.5556 to 0.1333 respectively. The differences in perception according to age are significant, at a threshold of 0.05 for the entire sample and for respondents from Hochelaga-Maisonneuve.

**Figure 3 Subjective quality-of-life index by component and neighbourhood.**




### c) Analysis of the relationship between objective and subjective quality-of-life

Table 2 summarizes the results obtained following application of Pearson's correlation coefficient to assess the degree of statistical relationship between objective and subjective quality-of-life. Objective quality-of-life, based primarily on material conditions, should usually produce potential for the development of a subjective quality-of-life, in keeping with the conceptual model presented above. As we expected, the results do show a generally positive correlation between the two aspects. However, although the values for the correlation coefficients are positive, they are still relatively weak. On the other hand, we realize that the assessment of accessibility is clearly more closely related to objective quality-of-life than is the assessment of environment. This difference is especially apparent within each of the neighbourhoods in which the correlations for accessibility are clearly higher. Our results therefore demonstrate that if subjective quality-of-life can be conceptualized as the result of a simultaneous assessment of environment and accessibility in a given neighbourhood, these two components are very different in nature, especially relative to the objective quality-of-life.

**Table 1 Statistical significance of the gap between groups with respect to subjective quality-of-life (F test)**

| Neighbourhoods | Degrees of freedom | F | Probability |
|---|---|---|---|
| | **Gender** | | |
| **Côte-des-Neige** | 1 and 43 | 1.191 | 0.281 |
| **Plateau Mont-Royal** | 1 and 45 | 8.328 | 0.006 |
| **Hochelaga-Maisonneuve** | 1 and 44 | 0.364 | 0.549 |
| **Total** | 1 and 136 | 1.582 | 0.211 |
| | **Age** | | |
| **Côte-des-Neige** | 3 and 46 | 0.261 | 0.853 |
| **Plateau Mont-Royal** | 3 and 45 | 1.410 | 0.252 |
| **Hochelaga-Maisonneuve** | 3 and 46 | 4.017 | 0.013 |
| **Total** | 3 and 145 | 2.651 | 0.051 |

On one hand, respondents' assessment of the accessibility of businesses and services in their neighbourhoods corresponds quite well to a certain objective reality, related to such things as their ability to get around and get to more strategic locations. On the other hand, assessment of environment seems to be in a completely different sphere in which social integration, membership and sense of belonging—dimensions that may have to do with concrete living conditions—play a significant, even essential role in the well-being of people living in a central neighbourhood.

**Table 2 Pearson's correlation coefficient (r) between objective and subjective quality-of-life**

| Subjective quality-of-life indicators: | Objective quality-of-life indicators | | | |
|---|---|---|---|---|
| | Côte-des-Neiges (n=10) | Plateau Mont-Royal (n=10) | Hochelaga-Maisonneuve (n=10) | The three neighbourhoods (n=30) |
| **1. Environment** | -0.083 | 0.088 | 0.084 | 0.064 |
| **2. Accessibility** | 0.564 | 0.265 | 0.306 | 0.124 |
| **Both** | 0.305 | 0.232 | 0.243 | 0.118 |

## Conclusion

Our analysis shows that, although objective quality-of-life may be considered to be supportive of subjective quality-of-life, as was assumed in our conceptual framework, it cannot be viewed as the only condition for achieving subjective quality-of-life. In fact, our results indicate a relatively weak relationship between the two types of quality-of-life in the central neighbourhoods of Côte-des-Neiges, Plateau Mont-Royal and Hochelaga-Maisonneuve. A more in-depth analysis of this relationship would help to refine this general observation. First, the strength of this relationship varies considerably between one neighbourhood and another. The relationship seems stronger in Côte-des-Neiges than in the other two neighbourhoods, suggesting that this neighbourhood experiences different and perhaps more complex quality-of-life issues. Our results demonstrate that accessibility to businesses and services is much more closely related to objective quality-of-life than is the environment. In fact, this latter dimension deals much more with existential dimensions of which personal experiences, learning, and membership in the neighbourhood are part, than with physical attributes.

For individuals concerned with urban planning, the results presented here have significant implications for the improvement of living conditions in central neighbourhoods. In fact, planning is too often based on objective aspects of living conditions and frequently neglects the potential significance of an individual's integration into a living environment. Yet, in light of the results obtained here, it seems that this is an essential condition for the effective transformation of objective quality-of-life into ascertainable individual and communal well-being.

## References

Langlois, A., D. Anderson. (2003), "Resolving the quality-of-life/Well-being Puzzle: Toward a New Model," **Canadian Journal of Regional Science,** 25 (3).

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